

III. REMARKS

In the Office Action, various ones of the claims were also rejected under 35 U.S.C. 103 as being unpatentable over the cited art, namely, claims 38-44, 46-52, and 75 over Ali (US 2003/0197679) in view of Larson WO 02/47365, claims 53-56, 58-59, 61-65, 71-74 and 77-78 and 84-85 over Abkowitz (US 2001/0041973), claim 57 over Abkowitz in view of Patwari (US 20020087300), claim 60 over Abkowitz in view of Someya (US 6546231), claims 64 and 69-70 over Parulski (US 7146179) in view of Ali, claims 66-68 and 79-80 over Abkowitz in view of Larson, claim 81 over Ali in view of Larson, and claim 82 and 83 over Asai in view of Abkowitz for reasons set forth in the Action.

As to the rejections under 35 U.S.C. 103, various ones of the claims are amended and the following argument is presented to distinguish the claimed subject matter from the teachings of the cited art, considered individually and in combination, thereby to overcome the rejections and to show the presence of allowable subject matter in the claims.

The following amendments are made to the claims and support for these amendments is indicated as follows.

Independent claim 38 has been amended to recite that the first input key of the device has "a first function", the second input key of the device has "a second function", and that the first and second functions are interchanged. Support for this amendment may be found in the present specification from page 5, line 21 to page 6, line 2, from page 7, line 22 to page 8, line 2 and in Figs 5A to 5D of the application. All subsequent references to page and line numbers relate to the PCT application as published.

Independent claim 53 has been amended to recite that the device comprises a display having a display area for displaying information content, "wherein the whole of any information content in the display area is displayed by the display". Support for this

amendment may be found, for instance, on page 5, lines 9 to 19, from page 8, line 16 to page 10, line 2 and in Figs 6A to 6C of the application.

Independent claim 53 has also been amended to recite that the device comprises "a radio frequency receiver configured to receive, from a further device, first information content composed on the further device, and to receive a parameter indicating the size of the display area in which the first information content was composed on the further device; and a processor configured, in response to reception of the parameter, to determine the size indicated in the parameter, and to control the display to display the received first information content in a display area having the indicated size, in order to display the information content in the form in which it was composed on the further device". Support for this amendment may be found from page 4, lines 20 to 22 and from page 9, line 23 to page 10, line 2 of the application. Corresponding amendments have also been made to independent method claim 61.

Independent claims 62 and 71 have been amended. Support for these amendments may be found on page 4, lines 20 to 22, on page 5, lines 9 to 19, in Fig 2, from page 8, line 16 to page 10, line 1 and in Figs 6A to 6C of the application.

Independent claims 77 and 78 have also been amended, with support for these amendments being found on page 4, lines 20 to 22, from page 8, line 16 to page 10, line 2 and in Figs 6A to 6C as originally filed.

Some minor amendments have also been made to some of the existing dependent claims. Current claims 54, 55, 57, 60, 75, 79, 80 and 83 to 85 have been canceled.

New claims 86 to 95 have been added. New claims 92 and 95 are computer program claims that correspond to device claims 38 and 62 respectively. Support for new claim 86 may be found from page 8, line 29 to page 9, line 11. Support for new claims 87 and 88 may be found on page 8, line 30. Support for new claims 89 and 90 may be

found from page 8, line 16 to page 10, line 2 and in Figs. 6A to 6C as originally filed. Support for new claim 91 may be found on page 9, lines 14 to 16. Support for new claim 92 may be found on page 4, lines 29 to 30 and in the same areas of the application as mentioned in relation to claim 38 above. Support for new claim 93 may be found on page 4, lines 29 to 30 and in claim 2 as originally filed. Support for new claim 94 may be found on page 4, lines 29 to 30 and page 8, lines 13 to 14. Support for new claim 95 may be found on page 4, lines 29 to 30 and in the same areas of the specification mentioned above in relation to claim 62.

The following argument is presented for independent Claims 38, 50 and 92. The Examiner has rejected independent claims 38 and 50 under 35 USC 103(a) as being unpatentable over Ali (US 2003/0197679 A1) in view of Larson (WO 02/47365).

Present independent claim 38 recites:

"[a] device, comprising:

a display, and first and second input keys associated with the display;
the display being configured to display information content with a first orientation, first control content, adjacent the first input key, indicating that the first input key has a first function, and second control content, adjacent the second input key, indicating that the second input key has a second function; and
a processor, for controlling the display, configured to vary the first orientation of the information content to a second orientation, to interchange the first function and the second function, and to interchange the first control content and the second control content, such that the second input key has the first function and the first control content is adjacent the second input key, and such that the first input key has the second function and the second control content is adjacent the first input key".

Ali discloses a keypad 750 which includes soft keys 870 and fixed keys 880. The fixed keys 880 each have a fixed function. The soft keys 870 each have a function that is

programmable and indicated by one of the soft key icons 820 located next to the soft keys 870 (paragraph [0068]).

Paragraph [0070] of Ali indicates that a display mode function is provided which "rotates the display 740 through all four orthogonal orientations, including portrait mode (Fig. 8B) and landscape mode (Fig. 8C), with each press of the corresponding key" ("rotation of the display" appears to refer to the rotation of the information icons 811, 813, 815 and 817 on the display 740). However, Ali does not provide an illustration of the display 740 in each of the four orthogonal orientations. It only provides illustrations of two of the orientations in Figs. 8B and 8C. It can be seen from Fig. 8B and 8C that when the display 740 is rotated from portrait mode (Fig. 8B) to landscape mode (Fig. 8C), the soft key icons 820 are also rotated, but remain next to their respective keys.

Larson discloses a pocket personal computer (PPC) in reference to Figs 6 to 9. The PPC includes a field of keys 224 that are rotatable with respect to the screen 214. Four sensor strips are arranged around a rotatable support 256 for the field of keys 224 (page 15, lines 1 to 5).

Larson indicates at page 15, lines 17 to 19 that "[a]n electronic link is provided between the [sensor strips] and the screen to control the orientation of the information on the screen as schematically shown in the drawings". Figs. 6 to 9 illustrate information being displayed on the screen in four different orientations, depending upon the rotational position of the field of keys 224.

The Examiner has argued in section 11 of the Office Action that Ali discloses all of the features of current claim 38, apart from "[interchanging] the first control content and the second control content, such that the first control content is adjacent the second input key and the second control content is adjacent the first input key". The Examiner argues that the reason the above feature is not disclosed by Ali is "because Ali only

shows tilting the device to one side". He continues "[h]owever, note in the figures above that Ali desires to maintain the order of the input keys, this is most likely because [it] would be troublesome to the user if he [has] to learn a new configuration layout to each mode".

The Examiner correctly identifies that Ali only illustrates (in Figs 8B and 8C) the displayed information rotating through two of the four orientations mentioned in paragraph [0070] of Ali. However, Ali provides no indication of the order that the soft key icons 820 should be displayed in (i.e. which of the soft keys 870 each soft key icon 820 should be allocated to) when the displayed information is rotated to the two orientations that are not illustrated in the figures of Ali. Ali merely discloses the rotation of each soft key icon 820 about an axis centered upon itself (see Figs. 8B and 8C).

The Examiner states that "Larson discloses a device [in which] the screen can be rotated to either side in landscape mode... [t]herefore it would have been obvious to one of ordinary skill in the art at the time of the invention to rotate the Ali display to either side and maintain the same order of the input keys by inverting the sequence of the control content, thereby providing the user an easy to learn interface regardless of the position of the device".

The Examiner has clarified his position in section 5 of the Office Action. In this section he appears to indicate that he is considering the term "control content" to correspond to the field of keys 224 in Larson. He states that when the field of keys 224 is rotated from the position indicated in Fig 6 to the position indicated in Fig 7, the numeral 1 (which he considers to be control content) moves from the right hand side of the PPC (assuming that the screen 214 is considered to be in the upper half of the PPC) to the left hand side of the PPC. The Examiner argues the "inversion" of the position of the keys in the field of keys 224 would lead a person skilled in the art to interchange the soft key icons 820, so as to arrive at something falling within the scope of independent claim 38.

Present claim 38 recites that the first and second "control content" is displayed on a display. In Larson, however, the numeral 1 is not displayed on a display but on a key. It cannot, therefore, be considered to be "control content" because claim 38 requires that "control content" is something that is displayed on a display "adjacent an input key".

Claim 38 also recites that the first and second functions are interchanged and first and second control content are interchanged, "such that the second input key has the first function and the first control content is adjacent the second input key, and such that the first input key has the second function and the second control content is adjacent the first input key". In Larson, no such "interchange" occurs because, for example, when the field of keys 224 is rotated, the numeral 1 (which the Examiner considers to be control content) does not interchange with another numeral so that it is adjacent another key (i.e. a different key); the numeral 1 always remains on the same key. Furthermore, the function of the key labeled with the numeral "1" does not appear to change when the field of keys 224 is rotated (and the orientation of the information displayed the display changes).

The PPC disclosed in Larson also has keys labeled with "Prog", "c" and arrows adjacent the screen 214. It is assumed that these labels relate to the function of these keys. Larson teaches in Figs 6 and 7 that these labels (and therefore their associated functions) are not interchanged, irrespective of the orientation of the information displayed on the screen 214.

Thus, the fundamental teaching of Larson is that the labels and functions of keys should be fixed, even when the orientation of information displayed on the screen is changed. Larson therefore directly teaches away from interchanging the functions of keys and the "control content" of keys when the orientation of information content on a display is varied. Consequently, a combination of Ali and Larson by a person skilled in the art would not lead to anything falling within the scope of attached claim 38.

Present independent claim 38 and corresponding method and computer program claims 50 and 92 are therefore considered to be novel and non-obvious in view of the disclosures made in Ali and Larson.

The following argument is presented for independent claims 53 and 61. The Examiner has rejected current independent claims 53 and 61 under 35 USC 103(a) for being unpatentable over Abkowitz (US 2001/0041973). Abkowitz relates to "using a first device [e.g. a personal computer] to emulate the display of content on a second device [e.g. a mobile telephone] that has different display capabilities than the first device, thereby allowing the ultimate appearance of the content of the second device to be considered while using the first device to specify the content for the second device" (paragraph [0025]).

A user of a management device 250 (a personal computer) may specify one or more target devices (mobile telephones) by using user interface controls of the management device 250 (paragraph [0032]). Paragraph [0038] states that "[o]nce a set of target devices has been selected, the user is presented with a user interface that allows the user to select web content for the target devices... [w]hen a user manipulates the content selection user interface to change content to be sent to the target device, the image of the target device is updated to reflect the change in specified content. Thus, the user can immediately take into account the ultimate appearance of selected content on the target device without having the target device present during the content selection process".

The Examiner appears to be arguing in the Office Action that Abkowitz discloses all of the features of current claim 53, but does not explicitly use the word "reduce". The Examiner has indicated that he is considering current claim 53 to relate to a situation where an emulation device (i.e. a target device) that is displayed on a display of the management device 250 is replaced by another device with a smaller screen.

Present independent claim 53 has been amended to recite that the device comprises "a radio frequency receiver configured to receive, from a further device, first information content composed on the further device, and to receive a parameter indicating the size of the display area in which the first information content was composed on the further device". This feature is not disclosed in Abkowitz. This is because, in Abkowitz, the "target device" to be displayed on the display is selected by a user, not indicated in a received "parameter". There is certainly no disclosure of a parameter being received that indicates the size of the display area in which the first information content was composed.

Independent claim 53 also recites that the device comprises "a processor configured to determine, in response to reception of the parameter, the size indicated in the parameter and to control the display to display the received first information content in a display area having the indicated size, in order to display the information content in the form in which it was composed on the further device".

Given that Abkowitz does not disclose the reception of a parameter that indicates the size of the display area in which the first information content was composed there can be no disclosure of a processor that is configured to determine the size indicated in such a received parameter, and to control the display to display the received first information content on a display area having the indicated size, in order to display the information content in the form in which it was composed (as required by claim 53).

Abkowitz states that it is concerned with enabling a user to use a "general purpose computer to specify ... web content for [a] mobile device" and enabling a user to use the "general purpose computer to make adjustments to the web content for the mobile device... until the appearance of the selected web content on the mobile device is acceptable to the user" (paragraph [0011]).

Thus, Abkowitz is directed towards specifying content at a device and enabling a user to provide a completely new way to arrange that content on the display of the device. Abkowitz, therefore, teaches directly away from providing a device in which a received parameter is used by a processor to display "information content" in the form in which it was originally composed. Consequently, there would be no incentive for a person skilled in the art to produce anything that falls within the scope of independent claim 53, having read Abkowitz.

The subject matter of independent device claim 53 is therefore considered to be novel and non-obvious. The subject matter of independent method claim 61 is considered to be novel and non-obvious for the same reasons.

The following argument is presented for independent claims 62, 71 and 95. The Examiner has rejected current independent claims 62 and 71 under 35 USC 103(a) for being unpatentable over Abkowitz.

Independent claim 62 has been amended to recite that the device comprises "a radio frequency receiver configured to receive, from a further device, first information content composed on the further device in a display area having a first size", and "a processor configured to reduce the size of the [a] variable display area from a current size to the first size, and to display the received first information content in the display area of the first size".

The "information content" of claim 62 is composed in a display area of the first size, and the "processor" of claim 62 is configured to change the size of a variable area from a current size to the first size, and to display the received first information content in the display area of the first size. Therefore, the processor controls the display to display the information content in a display area having the same size as the display area that the information content was composed in.

Abkowitz does not disclose displaying received information content in a display area having the same size as the display area that the information content was composed in.

In contrast to embodiments of the invention, Abkowitz is directed towards specifying content at a general purpose computer and enabling a user to provide a completely new way to arrange that content on the display of the general purpose computer. Therefore, there would be no incentive for a person skilled in the art to adapt the general purpose computer disclosed in Abkowitz, so that "information content" is displayed in a display area having the same size that the information content was composed in.

The subject matter of independent claim 62 and corresponding method and computer program claims 71 and 95 is therefore considered to be novel and non-obvious.

The following argument is presented for independent claims 77 and 78. The Examiner has rejected current independent claims 77 and 78 under 35 USC 103(a) for being unpatentable over Abkowitz.

Independent claim 77 has been amended to recite that the device comprises "a radio frequency receiver configured to receive, from a further device, information content composed in a display area of a first size on the further device, wherein the information content includes a plurality of characters" and "a processor configured to control the display to display the received information content in the form that it was composed by changing the size of the display area... to the first size".


As mentioned above in relation to claims 62, 71 and 95, Abkowitz neither discloses nor suggests using a processor to control a display to display received information content in a display area having the same size as the display area that the received information content was composed in.

The subject-matter of independent claims 77 and 78 is therefore considered to be novel and non-obvious for the same reasons as those expressed in section 4 above, in relation to claims 62, 71 and 95.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment of \$210 for one additional independent claim and for any other fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,



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